

AMENDMENTS TO THE DRAWINGS:

The attached sheets of drawings include changes to FIGS. 1A, 1B, 1C, 1D, 1F, and 1G.

Attachments: Replacement Sheets 1-3 corresponding to Figures 1A, 1B, 1C, 1D, 1E, 1F,
 1G, 2A, and 2B
 Annotated Sheets showing changes to Figures 1A, 1B, 1C, 1D, 1F, and
 1G

REMARKS

In the Office Action dated June 25, 2007, the Examiner has rejected/objected to claims 1-44, 72, 73, the drawings, and the specification. By this response, Applicants have amended claims 1, 2, 4, 10, 13, 15, 16, 19, 24, 27, 28, 33-36, and 38, canceled claims 8, 32, 72 and 73, amended the specification and drawings. After entry of this paper, claims 1-7, 9-31, and 33-44 remain pending in the application. Applicants believe that all the rejections and objections have been addressed in this response.

Objections to the Drawings

The drawings submitted to the Office with the original application and the replacement drawings submitted to the Office on April 2, 2007 were objected to by the Examiner for various reasons. Applicants address these objections below.

With respect to **Item 3(a)** in the Office Action, Applicants amend the specification to add a new paragraph briefly describing FIG. 1F (please refer to the Amendments to the Specification section).

With respect to **Item 3(b)(1)** in the Office Action, Applications have amended FIG. 1G to show a cross-sectional view.

With respect to **Item 3(b)(2)** in the Office Action, Applicants have amended FIGS. 1B, 1D, and 1F and brief description of the drawings to show the sectional plane, upon which the cross-sectional views of the figures were taken.

With respect to **Items 4 and 5** in the Office Action, Applicants have rearranged the figures to reflect the same arrangement as in the original application.

With respect to **Item 6(a)**, the dowel pin 521, the housing 300, and the push rod 500 are shown in the amended FIG. 1A and FIG. 1C. FIGS. 2A and 2B now better show a slot 340

defined in the main body 300. As described in paragraph [057] of the specification, “[s]lot 340 accommodates a dowel pin (not shown) that can restrict rotation of push rod 500 relative to main body 300.” Applicants respectfully submit that FIGS. 1A, 1C, 2A, and 2B show how the dowel pin 521 engages the housing 300 and the push rod 500. In view of FIGS. 1A, 1C, 2A, and 2B, a person skilled in art should appreciate how the dowel pin 521 engages the housing 300 and the push rod 500.

With respect to **Item 6(b)**, Applicants respectfully submit that FIG. 1A shows that the first threaded surface 410 is an external threaded surface and the second threaded surface 420 is an internal threaded surface.

With respect to **Item 6(c)**, Applicants respectfully submit that FIG. 1G shows that the first threaded surface 410 and the second threaded surface 420 are both external threaded surfaces.

With respect to **Item 6(d)**, claims 8 and 32 have been canceled, and thus the rejection becomes moot now.

With respect to **Item 6(e)**, Applicants respectfully submit that the motor in claims 21, 24, 38 and 44 is shown as the tool driver 702 in FIG. 6.

Accordingly, Applicants believe that the Office’s concerns with respect to the drawings have been addressed in the amended specification and drawings, and request that the objections be withdrawn.

Objections to the Abstract

In **Items 7-9** of the Office Action, the Examiner has objected to the Abstract. By this response, Applicants have amended the Abstract. Applicants believe that the Office’s concerns

with respect to the Abstract have been addressed by the amendments, and request that the objections be withdrawn.

Objections to the Specification

In **Item 10** of the Office Action, the Examiner states that the listing of references in the specification (e.g., Opto-Sigma in paragraph [006] of the specification) is not a proper Information Disclosure Statement.

In paragraph [006] of the specification, Applicants mentioned two adjusters, including Opto-Sigma, model 1125591, and Melles Griot, model 07-MAD-001. Applicants submit Information Disclosure Statement including descriptions of Opto-Sigma, model 1125591, and Melles Griot, model 07-MAD-001 recited in paragraph [006] with this response. The rejection should be withdrawn now.

In **Item 11** of the Office Action, the specification and claim 27 have been objected to because of typographical errors. Applicants have amended the specification and claim 27 as indicated by the Examiner. The rejections should be withdrawn now.

Claim Rejections Under 35 U.S.C. § 112

Claims 4-6, 8, 21, 24, 28-30, 32, 38, and 44 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

In **Items 12 and 13, first section**, claims 4 and 28 were rejected because, as stated by the Examiner, it is unclear as to how dowel pin 521 engages both the housing 300 and the rod 500 as claimed. Applicants respectfully disagree with the Examiner's assertion.

The dowel pin 521 is clearly shown in FIG. 1A and FIG. 1C. With this response, Applicants amend FIGS. 1A and 1C to add fillings in the circle denoted by reference number 521 to show that it is a cross-sectional view of the dowel pin 521. Even before this amendment,

because the specification refers to dowel pin 521 in multiple places, a person skilled in the art would appreciate the structure of the dowel pin, but would not consider it as an aperture as indicated by the Examiner. FIGS. 2A and 2B show a slot 340 defined in the main body 300 for receiving the dowel pin 500. As described in paragraph [057] of the specification, “[s]lot 340 accommodates a dowel pin (not shown) that can restrict rotation of push rod 500 relative to main body 300.” Applicants respectfully submit that, in view of FIGS. 1A, 1C, 2A and 2B, and the corresponding description in the specification, a person skilled in the art should appreciate how the dowel pin 521 engages the housing 300 and the push rod 500 and constrains the push rod 500 rotationally with respect to the housing 300.

In **Item 13, second section**, claims 5 and 29 were rejected as it is unclear how the first threaded surface 410 is an external threaded surface and the second threaded surface 420 is an internal threaded surface as claimed. Applicants respectfully submit that FIGS. 1A, 1C, and 3 clearly show that the reference number 410 points to an external threaded surface (external to the sleeve 400) and the reference number 420 points to an internal threaded surface. By this response, Applicants amend paragraph [035] to correct clerical errors. Applicants respectfully submit that the rejection should be withdrawn.

In **Item 13, third section**, claims 6 and 30 were rejected as it is unclear how the first and second threaded surfaces 410 and 420 are external surfaces. Applicants respectfully submit that FIG. 1G (originally FIG. 1F) clearly shows that the first threaded surface 410 and the second threaded surface 420 are external to the sleeve 400. Moreover, the structure is described in the specification. For example, paragraph [049] of the specification describes that “[i]n the embodiment shown in FIG. 1G, both first threaded surface 410 and second threaded surface 420 of intermediate actuator sleeve 400 are formed on an external surface 441 of intermediate

actuator sleeve 400.” Applicants respectively submit that, in view of FIG. 1G, and the corresponding description in the specification, a person skilled in the art should appreciate that the first threaded surface 410 and the second threaded surface 420 can be external surfaces.

In **Item 13, fourth section**, claims 8 and 32 were rejected because, as stated by the Examiner, it is unclear how the first and second threaded surfaces 410 and 420 are internal surfaces. Applicants respectfully disagree with the Examiner’s assertion. As discussed above, FIG. 1A and paragraph [035] illustrate that the first threaded surface 410 is an external surface and the second surface 420 is an internal surface. Paragraph [035] further describes that intermediate actuator sleeve 400 can include any configuration of threaded surfaces, for example, first threaded surface 410 being an internal surface. Thus, in view of FIG. 1A and paragraph [035], for example, a person skilled in the art should appreciate that both first and second surfaces 410 and 420 can be internal surfaces of the sleeve 400. Furthermore, as another example, FIG. 1G and corresponding description in the specification illustrate an embodiment with the first and second surface both being external surfaces. Applicants respectfully submit that in view of the specification, for example, paragraph [035], a person skilled in the art should appreciate that the first surface 410 and the second surface 420 can both be internal surfaces. Moreover, because claims 8 and 32 have been canceled, the rejection becomes moot now.

In **Item 13, fifth section**, claims 21, 24, 38, and 44 were rejected because, as stated by the Examiner, it is unclear how the motor is structurally interconnected with other elements in order to be the coarse adjustment tool as claimed. Applicants respectfully disagree with the Examiner’s assertion. Paragraph [065] of the specification describes that a “user rotates intermediate actuator sleeve 400 within main body 300 by using a tool, such as a hex wrench, to engage tool interface 430 located on the intermediate actuator sleeve 400.” FIG. 6 schematically

shows a tool 800 for rotating the sleeve 400. Paragraph [067] further describes the tool 800 in detail. As described in paragraph [067], the tool 800 includes a tool end 701 for engaging with the tool interface 430 of the sleeve 400 and a tool driver 702 that allows a user to rotate the tool end 701. The tool driver can be a handle, a knob, or a motor. In view of FIG. 6 and the corresponding description, a person skilled in the art should appreciate how a motor can be used to rotate the tool end 701. Applicants respectfully submit that the rejection should be withdrawn.

In **Items 14 and 15** of the Office Action, claims 10-21, 33-35, 72, and 73 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

By this response, Applicants have amended claims 10-21, 33-35 and canceled claims 72 and 73. Applicants believe that the Office's concerns have been addressed in the amendments, and request that the rejections to claims 10-21, 33-35, 72, and 73 under 35 U.S.C. §112, second paragraph, be withdrawn.

Claim Rejections Under 35 U.S.C. § 103(a)

In **Items 16-18** of the Office Action, claims 1-3, 5-9, 22, 23, 25-27, 29-32, 36, 37, 39-43, and claims 10-20 and 33-35 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,186,016 to Cable ("Cable").

The amended **claim 1** recites an intermediate actuator sleeve with a first threaded surface operatively engaging a housing to adjust the position of the intermediate actuator sleeve relative to the housing, a second threaded surface operatively engaging a push rod to adjust the position of the intermediate actuator sleeve relative to the push rod, and a tool interface. In the Office Action, the Examiner equates the threaded surface 24 in Cable to the first threaded surface as recited in claim 1. However, in Cable, as shown in FIGS. 1-3, the threaded surface 24 is used to

secure the main body 3 into the body 1. This feature can be further seen from the specification, which describes that “a main body 3 is threaded into body 1 at 24, 25 to form the main structure of the adjuster.” *See* col. 2, lines 6-7. Thus, the main body 3 is fixed to the body 1 at the threaded surfaces 24, 25. Cable does not teach or suggest using the threaded surface 24 to operatively engage a housing to “adjust the position of the intermediate actuator sleeve relative to the housing.” Thus, the main body 3 in Cable is different from the intermediate actuator sleeve as recited in claim 1.

Claims 2, 3, 5-7, 9-23, 25, and 26 ultimately depend from 1 and thus are patentable for at least the same reasons as set forth above with respect to claim 1.

Independent **claim 27** has been amended to recite similar limitations as discussed above with respect to claim 1. Thus, independent claim 27 should be patentable over Cable for at least the same reasons as set forth above with respect to claim 1.

Moreover, independent claim 27 recites that the push-rod is “coupled to the main body to restrict the relative rotational motion between the push-rod and the main body.” In the Office Action, the Examiner equates the driver screw 5 in Cable to the push-rod in claim 27. In Cable, the main body 3 is threaded into the body 1 at threaded surfaces 24 and 25 to form the main structure of the adjuster. *See* col. 2, lines 6-7. As discussed above, threaded surfaces 24 and 25 are used to secure the main body 3 with the body 1. Cable indicates that the driver screw 5 is threaded at surfaces 34, 35 into main body 3 providing advancement of internal components resulting in displacement. *See* col. 2, lines 18-22. While the driver screw 5 is threaded into the main body 3, it rotates relative to the main body 3. Because the main body 3 and the body 1 are fixed together, the driver screw 5 must rotate relative to the body 1 as well. Thus, in Cable, the relative rotation between the driver screw 5 and the body 1 is not restricted. Therefore, Cable

fails to teach that the push-rod is “coupled to the main body to restrict the relative rotational motion between the push-rod and the main body,” and independent claim 27 is further distinguishable from Cable.

Claims 29-31, 33-37 and 39-44 ultimately depend from 27 and thus are patentable for at least the same reasons as set forth above with respect to claim 27.

Claim Rejections Under 35 U.S.C. § 102(b)

In **Items 19-21** of the Office Action, claims 72 and 73 were rejected under 35 U.S.C. §102(b) as being anticipated by Cable and also anticipated by U.S. Patent No. 4,617,833 to Hall et al (“Hall”).

By this response, Applicants have canceled claims 72 and 73. Thus, the rejection becomes moot now.

Allowable Subject Matter

In **Items 22-23** of the Office Action, the Examiner indicated that claims 4, 21, 24, 28, 38, and 44 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Applicants thank the Examiner for indicating allowable subject matter. By this response, Applicants have amended claims 4, 24, 28, and 38 to independent claims. Applicants respectfully submit that these claims should be allowable.

Conclusion

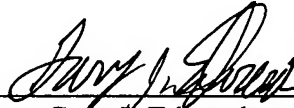
In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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GARRETT & DUNNER, L.L.P.

Dated: September 25, 2007

By: 
Gary J. Edwards
Reg. No. 41,008

Attachments: Replacement Sheets 1-3 corresponding to Figures 1A, 1B, 1C, 1D, 1E, 1F, 1G,
2A and 2B)
Annotated Sheets showing changes to Figures 1A, 1B, 1C, 1D, 1F, and 1G

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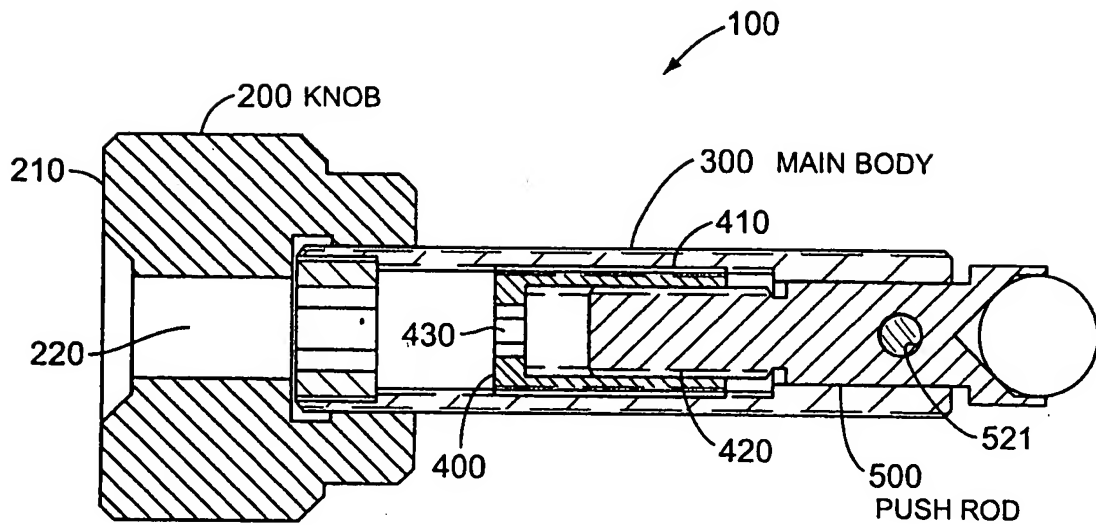


FIG. 1A

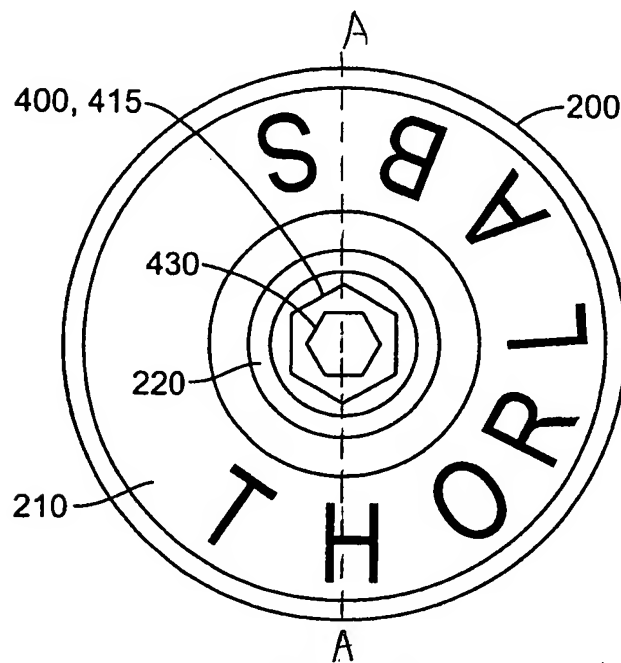


FIG. 1B

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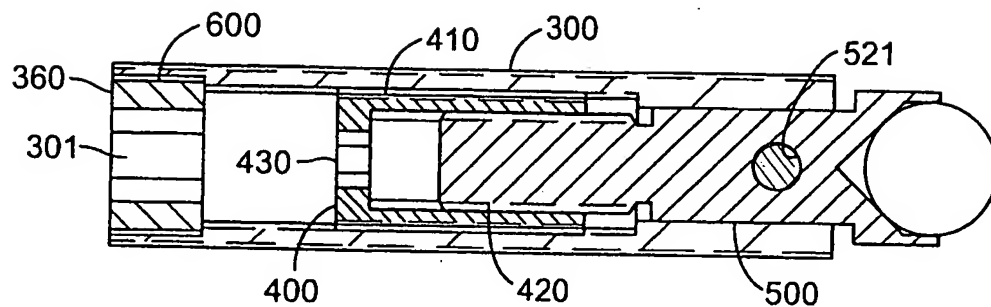


FIG. 1C

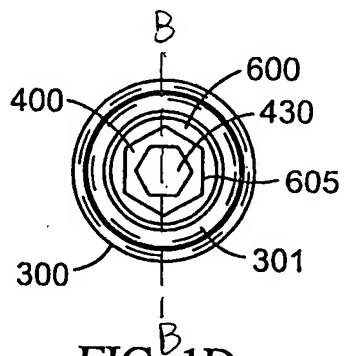


FIG. 1D

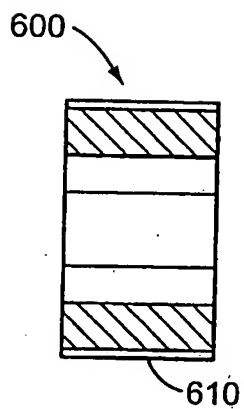


FIG. 1E

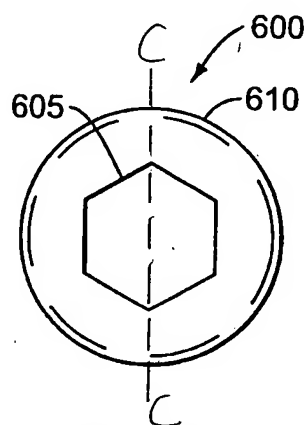


FIG. 1F

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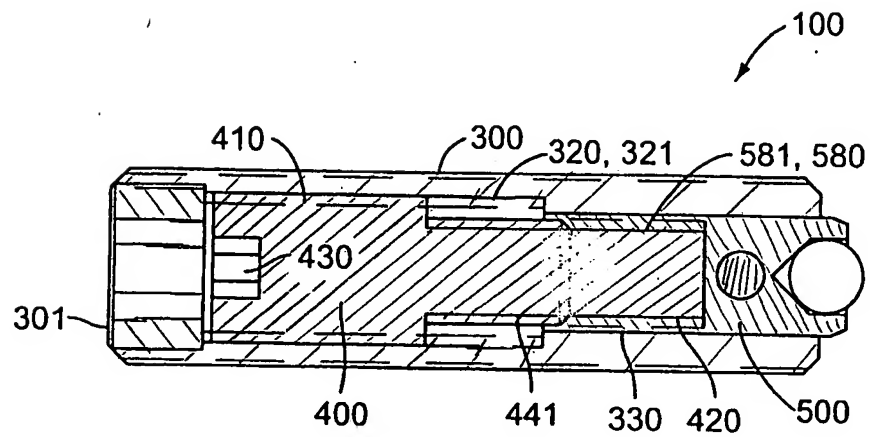


FIG. 1G

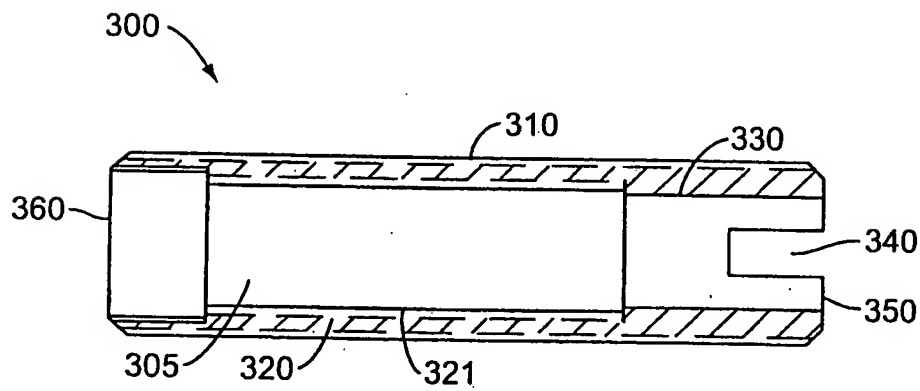


FIG. 2A

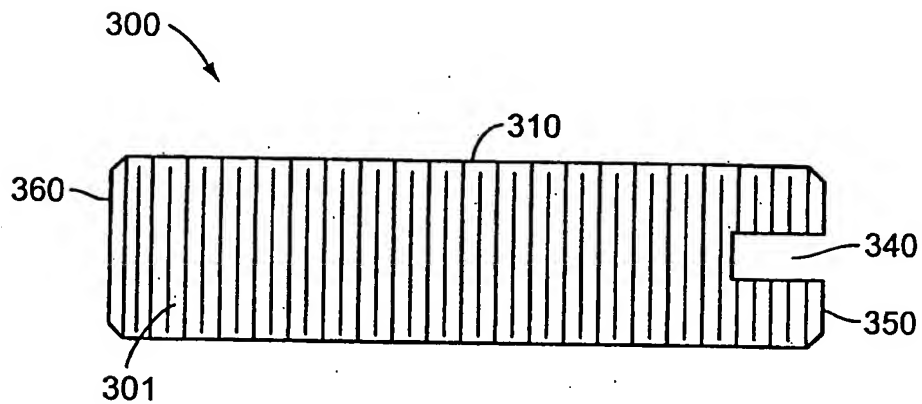


FIG. 2B